Texas Nonpoint SourceBOOK Is Now On-Line! http://www.txnpsbook.org

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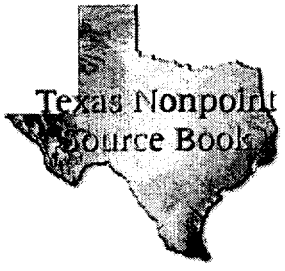
Summary



The Texas *Nonpoint SourceBOOK* is an Internet-based resource that has been developed to assist public works officials across Texas with storm water management. The *SourceBOOK* provides basic information about storm water quantity and quality impacts, outlines how to develop and implement a local storm water management program, identifies localized water quality issues, and provides an interactive database of more than 100 Best Management Practices (BMP's) to use in a variety of situations.

The Texas *Nonpoint SourceBOOK* provides information for the novice as well as the experienced storm water manager. The project was funded by the Environmental Protection Agency and matching funds from 20 local governments across Texas. The North Central Texas Council of Governments (NCTCOG) served as project administrator. The *SourceBOOK* was developed by a consulting team lead by Camp Dresser & McKee Inc. (CDM). A Project Management Committee of local governments provided project oversight. After extensive review via the Internet, the *SourceBOOK* was officially endorsed by the Executive Committee of the Texas Chapter – American Public Works Association (APWA). Five training workshops were conducted across the state. The *SourceBOOK* is intended to be a living resource, with additions and changes occurring continually in response to input from users. A feedback page allows direct input from the Internet.

Why a *Texas Nonpoint SourceBOOK*?

Recognizing the need for improved communication, cooperation, and education statewide on stormwater issues, a *Statewide* Storm Water *Quality* Task Force was established by the Executive Committee of the Texas Chapter - American Public Works Association. At an organizational meeting in February 1994, a Steering Committee and subcommittees were formed. The various subcommittees immediately tackled the task of identifying current issues and needs regarding storm water quality and nonpoint source pollution, particularly with respect to the needs of public works officials across Texas.

Already known was that nonpoint sources, including stormwater, contribute to water pollution problems. The Water Quality Subcommittee began to review data from the Texas Clean Rivers Program, available nonpoint source monitoring data, and the State's Nonpoint Source Water Pollution Assessment Report. They presented this assessment at subsequent meetings of the Task Force. Water quality problems were known, but not how best to address them.

What was not known was the applicability and cost-effectiveness of Best Management Practices (BMPs) for addressing many of the typical water quality pollutants: bacteria, pesticides, nutrients, metals, toxic chemicals, and others. The Best Management Practices (BMP) Subcommittee surveyed local governments across Texas on BMP implementation but found little technical data. It was evident that until questions such as applicability and cost-effectiveness could be answered, local governments would not invest limited public funds on storm water controls.

A project was formulated that would provide the assistance local governments needed by developing an internet-based resource of storm water management information. At the time it was a striking idea, since the Internet was very new and few local governments had any "on-line" experience. Using the emerging Internet would provide ready electronic access and would allow for the use of new technologies in communication. This resource was to be called the Texas *Nonpoint SourceBOOK,* and would be developed in both "hardcover" and electronic form. A grant application, submitted to the Texas Natural Resource Conservation Commission under the Section 319(h) Nonpoint Source Program, was awarded in the spring of 1996. Work on the project began in September, 1996.

How Was the *Texas Nonpoint SourceBOOK* Developed?

The North Central Texas Council of Governments provided staff support and general administrative oversight. To guide the development of the *SourceBOOK,* a Project Management Committee was established from the Texas Chapter-APWA membership. Among its first tasks was issuing a Request for Proposals for professional consultant assistance, and selecting the consultant finalists. From the finalists the Committee selected a consultant team led by the firm Camp Dresser & McKee Inc., in association with Espey Huston & Associates, Inc.; Center for Watershed Protection; Booth, Ahrens & Werkenthin, P.C.; Carter Burgess; and Pavlik & Associates. Together, the committee and consultants used the State's Nonpoint Source Water Assessment Report and supporting information to identify particular pollutants from priority watersheds and related pollution prevention BMPs.

During FY97, the Project Management Committee worked with the consultant to establish the format of the *Texas Nonpoint SourceBOOK* on the Internet. Presentations on local BMP experiences were made at the TX-APWA Short Course at Texas A&M in February, 1997. Initial consultant materials were reviewed by the TX-APWA general membership at its summer, 1997, Annual Meeting. A draft of the *Texas Nonpoint SourceBOOK* was presented to the TX-APWA general membership at the February 1998 Short Course, and local government comments were solicited.

The TX-APWA Executive Committee endorsed the *Texas Nonpoint SourceBOOK* in February, 1999. It is available through the Internet and on CD-ROM for use by local governments across Texas. The Committee and consultant conducted technology transfer and training workshops on storm water management and the *Texas Nonpoint SourceBOOK* at five regional one-day workshops across Texas during February and March of 1999.

How is the *Texas Nonpoint SourceBOOK* Organized?

The *SourceBOOK* is designed to make use of the capabilities of the Internet. This includes the ability to organize and present textual and graphical information through common browser formats, as well as providing active links to related sites. The design of the content of the *SourceBOOK* maximized the use of existing web sources wherever possible.

The content of the *SourceBOOK* consists of a set of modules:

Introduction and Overview

- About This Site
- Frequently Asked Questions (FAQs)
- Related Links
- Nonpoint Source News

. Post Your Feedback

Module 1 -- Nonpoint Source Management 101

. History of Nonpoint Source Management

. Urban Nonpoint Source Primer

. Controlling Urban Runoff--Guidance for Beginners

. Selecting the Right BMP -- Guidance for Beginners

. Planning Your Stormwater Management Program - Guidance for Beginners

• Glossary

Module 2 -- Urban Runoff Management Programs

. Introduction

. The Planning and Goal Setting Process

. Planning and Program Approaches

. Funding Mechanisms

. Measuring Effectiveness of Management Programs

. Implementation Strategies

. Case Studies

. Bibliography

. Additional Resources

Module 3 -- Characterizing Urban Waterways

. Urban Runoff Flow and Water Quality

• Assessing Urban Waterways

. Water Quality and Other Watershed Physical Characteristics in Texas

Module 4 -- Runoff Quality Best Management Practices

• Selecting Management Practices

. Housekeeping Practices

• Source Control Practices

. Treatment Control Practices

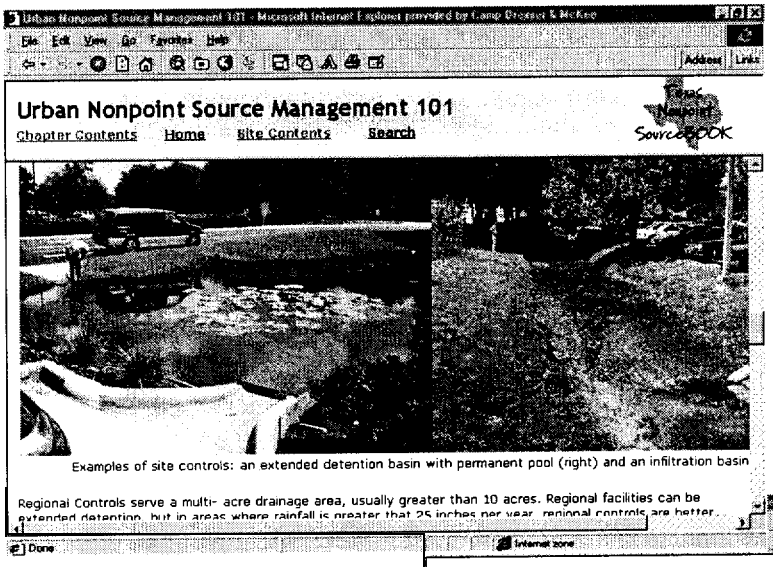
. Interactive BMP Selector

What Does Each Module Provide in the *Texas Nonpoint SourceBOOK*?

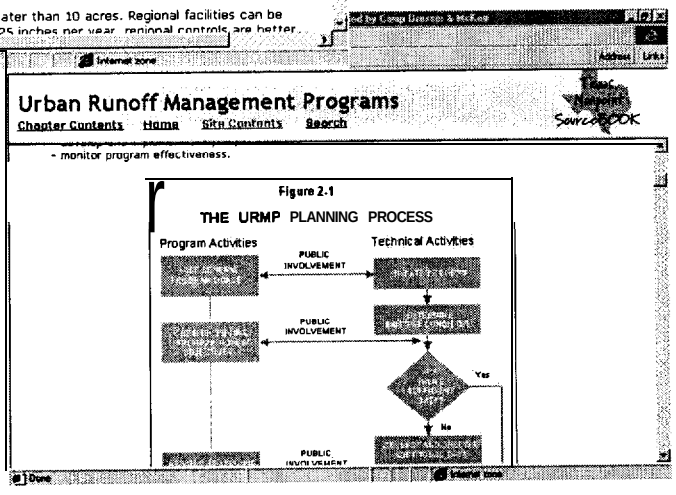
Module 1, "Nonpoint Source Management 101," is a primer for beginners on urban stormwater management. It quickly establishes that storm water quality and quantity management need to be addressed as one integrated program within a local government. It provides guidance on regulatory issues, basic axioms of runoff control, and the use of pollution prevention, source and treatment controls.

Module 2, "Urban Runoff Management Programs," describes the process to be used to manage urban runoff within the overall framework of the city, county, or special district. Particular attention is placed on the key institutional and financial components necessary for a successful ongoing program.

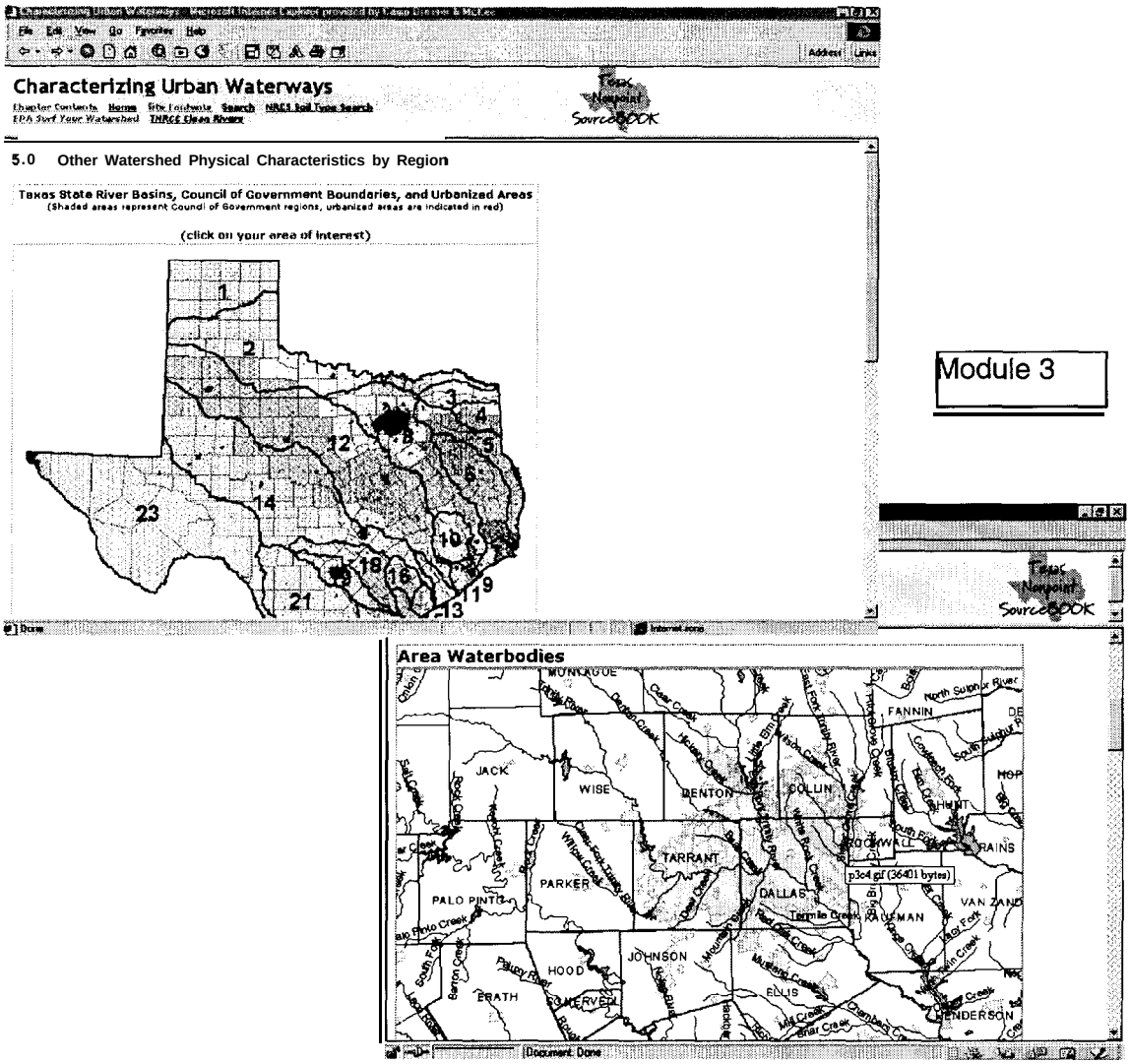
Module 3, "Characterizing Urban Waterways," begins with a generic discussion of urban runoff flow and water quality relationships. Considerable attention is then given to proper techniques for monitoring urban waterways and stormwater runoff. The majority of the module focuses on Texas-specific information. Descriptions of known water quality problems can be accessed for the entire state. Each regional planning area and basin has specific information on water bodies,



Module 1

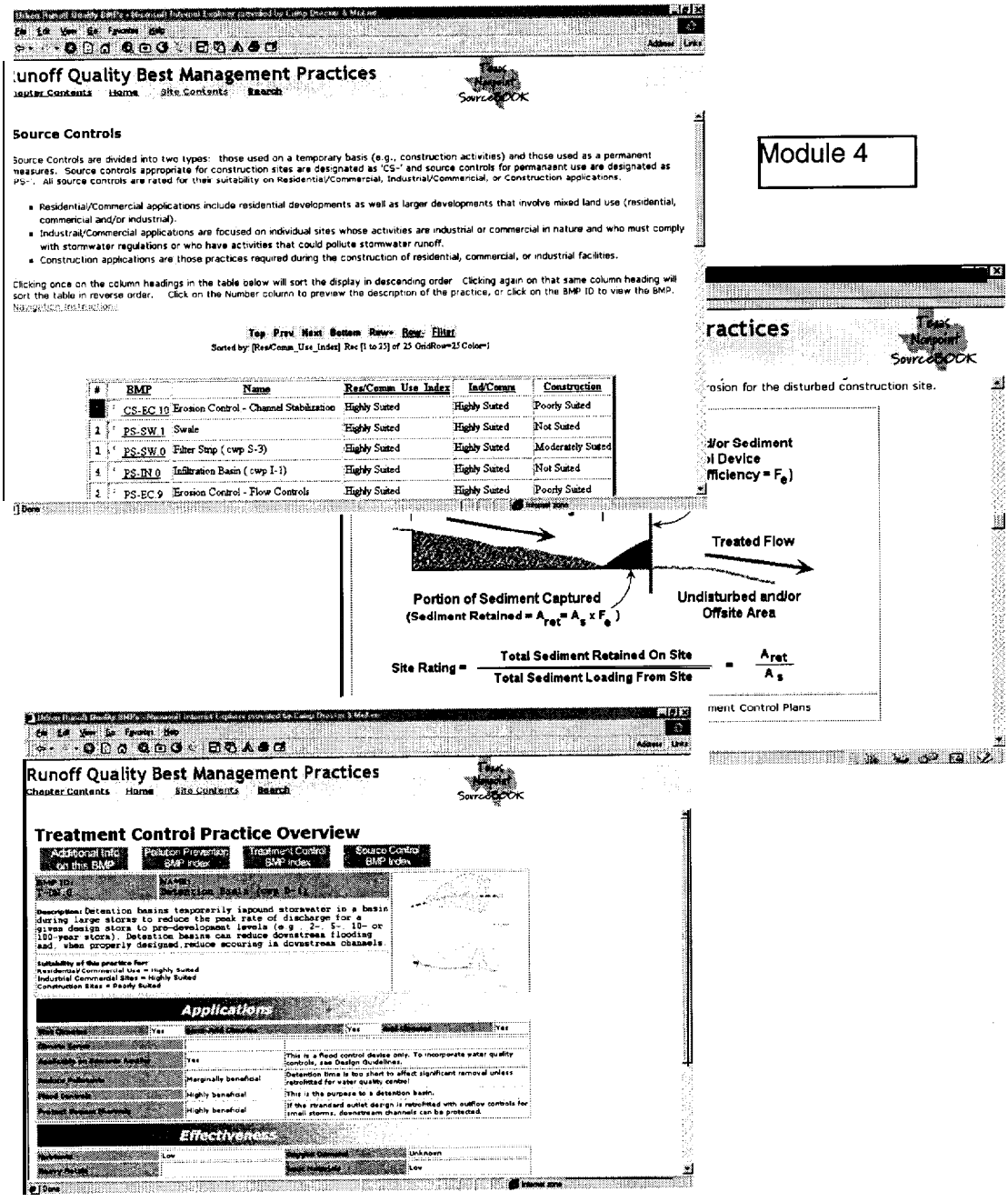


Module 2



watershed characteristics, annual precipitation and runoff, major soil types, and the like. There are many "hot" links to real-time gauging stations, local programs, and state/federal sites, such as EPA's Surf Your *Watershed.*

Module 4, "Runoff Quality Best Management Practices," provides guidance on the selection of Best Management Practices for pollution prevention, source control, and treatment control. Considerable effort was placed on gathering the most current information on more than 100 BMPs and review by the Project Management Committee of local governments. Each BMP includes detailed information, such as performance data, photographs, and relevant reference citations. An innovative BMP Interactive Selector was developed for the *SourceBOOK.* It enables the user to peruse BMP's in each category, or to input several characteristics specific to their situation and request a set of the most applicable BMPs.


unoff Quality Best Management Practices
Source Controls
Source Controls are divided into two types: those used on a temporary basis (e.g., construction activities) and those used as a permanent measures. Source controls appropriate for construction sites are designated as 'CS-' and source controls for permanent use are designated as 'PS-'. All source controls are rated for their suitability on Residential/Commercial, Industrial/Commercial, or Construction applications.
Residential/Commercial applications include residential developments as well as larger developments that involve mixed land use (residential, commercial and/or industrial).
Industrial/Commercial applications are focused on individual sites whose activities are industrial or commercial in nature and who must comply with stormwater regulations or who have activities that could pollute stormwater runoff.
Construction applications are those practices required during the construction of residential, commercial, or industrial facilities.
Clicking once on the column headings in the table below will sort the display in descending order. Clicking again on that same column heading will sort the table in reverse order. Click on the Number column to preview the description of the practice, or click on the BMP ID to view the BMP.
Top Prev Next Bottom Rows: Filter
Sorted by: [Res/Comm_Use_Index] Rec [1 to 25] of 25 OrigRow=25 Color=1
BMP Name Res/Comm Use Index Ind/Comm Construction
CS-EC 10 Erosion Control - Channel Stabilization Highly Suited Highly Suited Poorly Suited
1 PS-SW 1 Swale Highly Suited Highly Suited Not Suited
1 PS-SW 0 Filter Strip (cwp S-3) Highly Suited Highly Suited Moderately Suited
4 PS-IN 0 Infiltration Basin (cwp I-1) Highly Suited Highly Suited Not Suited
1 PS-EC 9 Erosion Control - Flow Controls Highly Suited Highly Suited Poorly Suited
Done
Module 4
ractices
osion for the disturbed construction site.
/or Sediment
l Device
fficiency = F_e)
Treated Flow
Portion of Sediment Captured
(Sediment Retained = $A_{ret} = A_s \times F_e$)
Undisturbed and/or
Offsite Area
Site Rating = Total Sediment Retained On Site / Total Sediment Leading From Site = A_{ret} / A_s
ment Control Plans
Runoff Quality Best Management Practices
Chapter Contents Home Site Contents Search
Treatment Control Practice Overview
Additional Info on this BMP
Pollution Prevention BMP Index
Treatment Control BMP Index
Source Control BMP Index
Description: Detention basins temporarily impound stormwater in a basin during large storms to reduce the peak rate of discharge for a given design storm to pre-development levels (e.g., 2-, 5-, 10- or 100-year storm). Detention basins can reduce downstream flooding and, when properly designed, reduce scouring in downstream channels.
Suitability of this practice for:
Residential/Commercial Use = Highly Suited
Industrial Commercial Sites = Highly Suited
Construction Sites = Poorly Suited
Applications
Yes
Yes
This is a flood control device only. To incorporate water quality controls, see Design Guidelines.
Marginally beneficial
Detention time is too short to affect significant removal unless retrofitted for water quality control
Highly beneficial
This is the purpose of a detention basin.
Highly beneficial
If the standard outlet design is retrofitted with outflow controls for small storms, downstream channels can be protected.
Effectiveness
Low
Unknown
Low
Done